

NATIVE FLOWERING PLANT SPECIES NEW OR OTHERWISE SIGNIFICANT IN KENTUCKY

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ABSTRACT

Twelve species or varieties of vascular plants, all native to the southeastern U.S.A, are reported as new or noteworthy for Kentucky. Ten of these are the first documented records for the state: *Bromus nottowayanus*, *Carex corrugata*, *C. oklahomensis*, *C. ouachitana*, *C. oxylepis* var. *pubescens*, *C. roanensis*, *Eleocharis tuberculosa*, *Gentiana andrewsii*, *Vaccinium erythrocarpum*, and *Viburnum lantanoides*. Additional counties are reported for two rare species: *Carex buxbaumii* and *C. seorsa*.

RESUMEN

Se presentan 12 especies o variedades de plantas vasculares, todas nativas de la región sudeste de los Estados Unidos y se citan como nuevas o de interés para el estado de Kentucky. Diez de estas plantas son las primeras citas documentadas del estado que son: *Bromus nottowayanus*, *Carex corrugata*, *C. oklahomensis*, *C. ouachitana*, *C. oxylepis* var. *pubescens*, *C. roanensis*, *Eleocharis tuberculosa*, *Gentiana andrewsii*, *Vaccinium erythrocarpum*, y *Viburnum lantanoides*. Al nivel del condado, se presentan dos especies raras: *Carex buxbaumii* y *Carex seorsa*.

INTRODUCTION

Recent field and herbarium work have resulted in the discovery of several species of native flowering plants new to Kentucky or very rare in the state. These findings will update Kentucky distribution records as listed by Beal and Thieret (1986), Browne and Athey (1992), and Medley (1993). Kentucky rarity status—Special Concern, Threatened, Endangered, or Historical, is based on KSNPC (2000, 2001). Additional information on Clinton County records is provided by Gorton (2000). Terminology for physiographic regions is based on Browne and Athey (1992), and herbarium abbreviations follow Holmgren et al. (1990).

TAXA NEW OR OTHERWISE SIGNIFICANT FOR KENTUCKY

Bromus nottowayanus Fernald (POACEAE). Though Kentucky is well within the geographic range of this species as provided by Pavlick (1995), this record is apparently the first published for the state. Almost certainly, earlier Kentucky collections exist for this woodland grass.

Voucher specimen: **Kenton Co.:** mesic deciduous forest, Independence, 10 Aug 1995, R. Naczi 4911 & B. Dalton (KNK).

Carex buxbaumii Wahlenb. (CYPERACEAE). This is the second county in Kentucky documented for this species. Earlier records for this species are from Ballard County, in the westernmost portion of Kentucky, in the Coastal Plain region (Medley 1993). These records are over 20 years old, and the species is currently listed in Kentucky as Historical. This collection therefore provides a redocumentation of the species for the state, and is also the first record from the Mississippian Plateau region of the state. Kentucky is near the southern limit of this species; east of the Mississippi River, it ranges south to North Carolina and Tennessee (Radford et al. 1968; Gleason & Cronquist 1991; Chester et al. 1993).

Voucher specimen: **Clinton Co.:** hardwood swamp NW of Albany, 20 May 1999, R. Naczi 8008 (DOV, EKY, KNK).

Carex corrugata Fernald (CYPERACEAE). These specimens represent the first record of the species from the state. Kentucky is the northern limit of this sedge, which is most common on river floodplains in the Coastal Plain of the southeastern U.S.A. (Naczi 1992). Most of the collections cited here are from sites along the Ohio or Mississippi rivers.

Voucher specimens: **Butler Co.:** Mudd River/Green River junction at Butler/Muhlenberg County line, 3 May 1995, L. McKinney 6373 (MICH). **Campbell Co.:** Silver Grove, forested floodplain of Ohio River, 12 May 1995, R. Naczi 4581 & J. C. Ganss (DOV, MICH); Melbourne, forested floodplain of Ohio River, 17 May 1999, R. Naczi 7874 (DOV). **Fulton Co.:** SW of Hickman, 5 May 1990, L. McKinney 4124 (EKY). **Hardin Co.:** Prewitt's Lake, 29 May 1977, R. Cranfill 239a (MICH). **McCracken Co.:** Reidland, 26 May 1969, R. Athey 641 (MUR). **Union Co.:** near Caney Mound School, 6 Jul 1936, H. Shacklette 401 (GH).

Carex oklahomensis Mack. (CYPERACEAE). These specimens represent the first record of the species from the state. This species also occurs in the midwestern U.S.A., from Missouri and Kansas south to Texas, and in the eastern U.S.A. in Mississippi, North Carolina, Tennessee, and Virginia (Jones & Reznicek 1995; Bryson et al. 1996; Wieboldt et al. 1998).

Voucher specimens: **Calloway Co.:** wet fallow field, Snipe Creek Embayment, 5 Jun 1989, J. Grubbs 1501 (MUR). **McCracken Co.:** wet ditches on the Ichneidman Road, 24 May 1970, R. Athey 932 (KNK, MUR). **Marshall Co.:** wet woods, Sharp-Elva Road off US 68, 10 May 1972, R. Athey 1666 (MUR).

Carex ouachitana Kral, Manhart & Bryson (CYPERACEAE). This recently described sedge is known from sites in western Arkansas and eastern Oklahoma (Kral et al. 1987; Naczi & Bryson 1990), and a single site in Clay County, Tennessee (McNeilus 1992). This collection from Clinton County, Kentucky, only a few km from the Clay County site, represents a new record for Kentucky, and the second record of the species from east of the Mississippi River.

Voucher specimen: **Clinton Co.:** dry-mesic slope N of Albany, 11 Apr 1998, M. Gorton 98-147 (EKY); 21 Apr 1999, M. Gorton 99-109 (EKY).

Carex oxylepis Torr. & Hook. var. **pubescens** J.K. Underwood (CYPERACEAE). Though *C. oxylepis* var. *oxylepis* is known from Kentucky (Medley 1993), this collection appears to be the first of *C. oxylepis* var. *pubescens* from the state. Additionally, the population documented by this record represents a portion of the northern range limit of this variety. This taxon appears to be rare; literature reports are from only one county in Alabama (Bryson et al. 1992), ten counties of Arkansas (Hyatt 1998), one county of Illinois (Basinger & Shimp 1999), one county of Mississippi (Bryson et al. 1992), and four counties of Tennessee (Chester et al. 1993).

Voucher specimen: **Clinton Co.:** mesic deciduous-juniper forest NE of Albany, 20 May 1999, R. Naczi 7982 (DOV, EKY, KNK).

Carex roanensis F.J. Herm. (CYPERACEAE). This is the first record of this sedge from Kentucky. It was previously known from only a few populations in Georgia, North Carolina, Tennessee, Virginia, and West Virginia, mostly from high elevation sites (Wieboldt et al. 1998). It was found at several sites on Black Mountain, at elevations between 1100-1150 m, but these sites are threatened by strip mining activities. It has recently been added to the Kentucky list of rare plants as Endangered.

Voucher specimen: **Harlan Co.:** Black Mountain, wooded S-facing slopes above Razor Fork, 19 Aug 1998, R. Jones and J. Metzmeier 8737b, 8757 (EKY).

Carex seorsa Howe (CYPERACEAE). These records add two counties to the two previously reported, Bath and Graves (Ousley & Risk 1998; McKinney et al. 2000). This species is most common on the Coastal Plain, and populations outside of that physiographic province are very few (Reznicek & Ball 1980). It is currently listed as a Special Concern taxon in Kentucky.

Voucher specimens: **Calloway Co.:** Blood River Embayment, 23 May 1989, J. Grubbs 1383 (MUR). **Clinton Co.:** hardwood swamp NW of Albany, 22 May 1998, Naczi 7175 & Ford (DOV); 20 May 1999, R. Naczi 7986 (KNK).

Eleocharis tuberculosa (Michx.) Roemer & Schultes (CYPERACEAE). This collection represents a state record for Kentucky. It ranges mostly on the Coastal Plain, and it is quite rare outside of that province (Svenson 1937), though it does occur nearby in Fentress County, Tennessee (Chester et al. 1993).

Voucher specimens: **Clinton Co.:** openings in hardwood swamp NW of Albany, 20 May 1999, R. Naczi 8002 (DOV, EKY, KNK); 3 Aug 2000, R. Naczi 8598 & M. Wessel (DOV, EKY, KNK).

Gentiana andrewsii Griseb. (GENTIANACEAE). This collection is apparently the first documented record of this species for Kentucky. Browne and Athey (1992) cited specimens from the Mississippian Plateau and the Bluegrass regions, but these citations were apparently based on a specimen from Mammoth Cave (*J. Bruna s.n.*, 23 Oct 1965, EKY!), which has now been annotated by R. Jones

as *Gentiana saponaria* L., and on a specimen once housed at the University of Kentucky Agricultural Herbarium—this specimen was searched for but could not be located. The collection cited by Medley (1993) as a voucher for Kentucky, (*Short s.n.*, 1837, MICH!) lacks locality data. The “Lexington, Kentucky” pre-printed on the label was Short’s residence at the time (Stafleu & Cowan 1985), and not the place where the plant was collected. Short’s habit was to write the collection locality on the label, in the space above pre-printed information. Since his label lacks such an inscription, it must be regarded as of unknown provenance. Pringle (1967) cited no Kentucky specimens of *G. andrewsii*, and states that this Campbell County collection is the first he has seen for the state (J. Pringle, pers. comm.). The site of the collection is at or near the southern range limit for *G. andrewsii*, which is known from nearby southern Indiana and southern Ohio (Pringle 1967). At the Campbell County locality, the gentians were locally common in an open, wet-mesic, deciduous floodplain forest dominated by young *Acer rubrum* and *Quercus palustris*.

Voucher specimen: **Campbell Co.:** Silver Grove, floodplain of Ohio River, 13 Oct 1997, R. Naczi 7059 (KNK), dupl. det. by James S. Pringle; 29 Sep 1998, R. Naczi 7735 (KNK).

Vaccinium erythrocarpum Michx. (ERICACEAE). The mountain cranberry is restricted to the southern Appalachians, from West Virginia to Georgia, mostly above 1000 m. Medley (1993) reported a possible sterile specimen of this species collected from Harlan County (*L. Pounds 85-138*) deposited at the University of Tennessee Herbarium, but a recent search failed to locate any Kentucky collection (B. E. Wofford, pers. comm.). This fruiting specimen substantiates the presence of the species in Kentucky. The site, however, is likely to be destroyed by strip mining activities. It has recently been added to our state list of rare plants as Endangered.

Voucher specimen: **Harlan Co.:** S slope of Black Mountain, woodland edge along mining road toward Left Fork of Fugitte Creek, elevation 900 m, 14 Aug 1998, R. L. Jones & J. Metzmeier 8639 (EKY).

Viburnum lantanoides Michx. (CAPRIFOLIACEAE). This is the first record of *Viburnum lantanoides* for Kentucky. Earlier reports were unsubstantiated or based on misidentifications (Weckman 1999). The species is common in some high elevation areas of the southern Appalachians, usually above 1000 m. It has been documented from several western Virginia counties, including contiguous Wise County (Harvill et al. 1986), but is not yet known from Tennessee counties adjacent to the Kentucky border (Chester et al. 1997). A single population of about 50 individuals was discovered in the Razor Fork streamhead, growing with *Betula alleghaniensis* and *Magnolia fraseri*. Persistence of this Kentucky population is threatened by potential valley fill associated with proposed strip mining on Black Mountain. It has recently been added to the Kentucky list of rare plants as Endangered.

Voucher specimen: **Harlan Co.:** Black Mountain, at head of Razor Fork, elevation 1050 m, 19 Aug 1998, R. L. Jones & J. Metzmeier 8804 (EKY); 5 Sep 1998, T. Weckman 4349 (EKY).

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